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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/919,947	08/29/1997	RICHARD J. RICHARDSON	310030-234	7955

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EXAMINER
WARD, JOHN A

ART UNIT	PAPER NUMBER
2875	

DATE MAILED: 03/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 08/919,947	Applicant(s) RICHARDSON, RICHARD J.	
	Examiner John A. Ward	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *81-118* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *81-118* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 81, and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amstutz et a (US 4,955,044) in view of Yoon et al (US 6,031,338)

Amstutz et al ('044) discloses a lighted display case comprising of an integral frame work 16 (line 21, column 3), rear sliding doors 28 (line 23, column 3), a fluorescent tube socket 98 extending from the mainframe 101 (figure 19, 20), in addition to an electrical cord 36 and a wiring assembly 38 (lines 45-46, column 3).

Amstutz et al does not disclose electronic ballast that operates above 200 volts.

Yoon et al ('338) discloses an electronic ballast method and apparatus and coupling therefore comprising of a frame element 24, a door 22 to receive the frame element inside a refrigerated display case 20 (lines 55-60, column 3). Electronic ballast 32, having an operating voltage of 95-277 volts, and a operating frequency of 80khz that is produced by the lamp driving circuit 38 (lines 25-26, column 6). The ballast 32

has an operating temperature of –60 degrees Celsius and to 100 degrees Celsius (lines 11-18, column 2).

Yoon et al does not disclose the lamp socket forming an electrical bridge having a surface area of at least 0.008 square inch.

Amstutz in view of Yoon et al discloses all the limitations of the claimed invention except for the surface area of the contact of the lamp socket of at least 0.008 square inch. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a surface area of at least 0.008 square inch since it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a surface area of at least 0.008 square inch since it is old and well know in the art by increasing the amount of surface area of an electrical conductor of electricity, allows a greater amount of current to flow through that conductor.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the lighted display of Amstutz et al with the electronic ballast of Yoon et al in order to provide a low cost ballast that can be used in a low temperature storage device.

Claims 82-88, and 92-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amstutz et al in view of Yoon et al as applied to claim 81 above, and further in view of Kelman (US 2,522,044).

Amstutz et al in view of Yoon et al discloses all the limitations of the claim except the physical description of the fluorescent lamp socket

Kelman ('044) discloses a fluorescent light socket comprising of contact fingers 45 with arcuate shape of the surface, longitudinal connection movement with the lamp 11 (figure 1). Having a hollow–cylindrical shape for accepting the pin contact of the fluorescent lamp 11 (figure 1) and covering the pins by at least 50 percent (figure 5), a split sleeve contacts 41, 40 that connect to the lamp (figure 6, 11) which can be mounted by screws or solder (both methods are old and well known in the art), with the pins having engage the lamp over the last 180 degrees of circumferential surface of the lamp pins (lines 50-53, column 3).

Kelman doe not discloses the surface area of the contact of the lamp socket of at least 0.008 square inch.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a surface area of at least 0.008 square inch since it is old and well know in the art by increasing the amount of surface area of an electrical conductor of electricity allows a greater amount of current to flow through that conductor

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the fluorescent of Amstutz et al with the electronic ballast of Yoon et al and the socket of Kelman in order to provide a fluorescent lamp installed in the fresh food compartment hat can handle temperatures at and below freezing.

Claims 100-117 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoon et al ('338) in view of Robertson (US 5,904,415).

Yoon et al ('338) discloses an electronic ballast method and apparatus and coupling therefore comprising of a frame element 24, a door 22 to receive the frame element inside a refrigerated display case 20 (lines 55-60, column 3). Electronic ballast 32, having an operating voltage of 95-277 volts, and a operating frequency of 80khz that is produced by the lamp driving circuit 38 (lines 25-26, column 6). The ballast 32 has an operating temperature of –60 degrees Celsius and to 100 degrees Celsius (lines 11-18, column 2).

Yoon et al does not disclose the cylindrical fluorescent light and socket not the dimensions of the socket it is attached to.

Robertson et al ('415) discloses a fluorescent bulb connector assembly comprising of a cylindrical fluorescent lamp 300, a first and second socket 203, 204, by means of the connector 100 to hold the lamp (figure 1), along with making electrical contact with the lamp. Figure 3 disclose how the socket hollow sections 104, 105 for engaging the pins 303, 304 on the lamp making electrical contact (lines 45-49, column 4).

The hollow section as seen in figure 3, will also cover over 50 percent of the pins on the lamp, the housing around the connector and socket 101 are made of heat resistant plastic (lines 35-37, column 5), the socket 103 has electrical wires 112 that are connected to the sockets in order to provide an electrical connection between the receiving housing 203 and the socket.

Yoon et al does not disclose the lamp socket forming an electrical bridge having a surface area of at least 0.008 square inch.

Yoon et al in view of Robertson et al discloses all the limitations of the claimed invention except for the surface area of the contact of the lamp socket of at least 0.008 square inch. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a surface area of at least 0.008 square inch since it is old and well know in the art by increasing the amount of surface area of an electrical conductor of electricity allows a greater amount of current to flow through that conductor.

It is old and well know in the art to uses at least 16 gauge wire for providing electrical conduction to a lamp socket due to its dimension and ability to conduct electricity. It is also old and well known in the art to provide a connector with the dimensions of greater than 0.07 square inch in a fluorescent T-8 bulb socket.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the ballast of Yoon et al, that can be operable in a refrigerated area, with the fluorescent of Robertson et al, in order to provide a light source that can be used in a refrigerated display case over a given temperature range as disclosed in the abstract of Yoon et al.

Claim 118 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amstutz et al in view of Yoon et al.

Amstutz et al ('044) discloses a lighted display case comprising of an integral frame work 16 (line 21, column 3), rear sliding doors 28 (line 23, column 3), a fluorescent tube socket 98 extending from the mainframe 101 (figure 19, 20), and electrical cord 36 and wiring assembly 38 (lines 45-46, column 3).

Amstutz et al does not disclose electronic ballast that operates above 200 volts.

Yoon et al ('338) discloses an electronic ballast method and apparatus and coupling therefore comprising of a frame element 24, a door 22 to receive the frame element inside a refrigerated display case 20 (lines 55-60, column 3). Electronic ballast 32, having an operating voltage of 95-277 volts, and a operating frequency of 80khz that is produced by the lamp driving circuit 38 (lines 25-26, column 6). The ballast 32 has an operating temperature of –60 degrees Celsius and to 100 degrees Celsius (lines 11-18, column 2).

Yoon et al does not disclose the lamp socket forming an electrical bridge having a surface area of at least 0.008 square inch.

Amstutz in view of Yoon et al discloses all the limitations of the claimed invention except for the surface area of the contact of the lamp socket of at least 0.008 square inch. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a surface area of at least 0.008 square inch since it is old and well know in the art by increasing the amount of surface area of an electrical conductor of electricity allows a greater amount of current to flow through that conductor.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the lighted display of Amstutz et al with the electronic ballast of Yoon et al in order to provide a low cost ballast can be used in a low temperature storage device.

Response to Arguments

Applicant's arguments filed December 7, 2001 have been fully considered but they are not persuasive. Even thought the prior art of Amstutz et al in view of Yoon et al does not disclose the dimensions of the lamp socket, it is common knowledge to increase the amount of surface area of an electrical contact will allow more current to flow through that contact.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Amstutz et al does teach the use of a fluorescent lamp in a refrigerated display case and Yoon et al teaches (lines 44-54, column 3) that the electronic ballast of the instant prior art is operable in a refrigerated display which makes each of the prior art related.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, The prior art of

Kelman does discloses in figure 5 and 6 how the pins engage in the lamp socket and it is further know that a fluorescent lamp pins will engage a socket at a 180 degrees circumference when the lamp is engage and rotated. .Regarding no prior art was discloses teach the use of 16 gauge wire for the ballast, it is old a well know to use such a gauge in the electrical wiring of lighting fixtures in home and business for the purpose of providing proper electrical current to each lighting fixture.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Ward whose telephone number is 703-305-5157. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 703-305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0596.

JAW
March 6, 2002

Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800